1125-47-629 **Alexandru Aleman**, **Michael Hartz**, **John E. McCarthy** and **Stefan Richter*** (richter@math.utk.edu). *Interpolation for multipliers between spaces.* Preliminary report.

Let X be a set. If $k_\lambda(z)$ is a positive definite function on $X \times X$, then we write $\mathcal{H}_k$ for the Hilbert space of complex-valued functions on X with reproducing kernel k, and we write $\hat{k}_\lambda = k_\lambda/\|k_\lambda\|$ for the normalized reproducing kernel at λ. If s and k are two reproducing kernels on X, then $M(\mathcal{H}_s, \mathcal{H}_k)$ denotes the multipliers from $\mathcal{H}_s$ to $\mathcal{H}_k$. A sequence of distinct points $\{\lambda_n\} \subseteq X$ is called interpolating for $M(\mathcal{H}_s, \mathcal{H}_k)$, if for each $\{w_n\} \in l^\infty$, there is a $\varphi \in M(\mathcal{H}_s, \mathcal{H}_k)$ such that $M_\varphi^* \hat{k}_{\lambda_n} = \overline{w}_n \hat{s}_{\lambda_n}$ for each n.

We characterize the $M(\mathcal{H}_s, \mathcal{H}_k)$-interpolating sequences for the case where $s_{z_0} = 1$ for some $z_0 \in X$, $\mathcal{H}_s$ has the complete Pick property, and k is of the form $k_\lambda(z) = s_\lambda(z)^t$ for some $t \geq 1$.

If $t = 1$, then in some cases our results reduce to known and classical results, but they are new even for the Drury-Arveson space of the unit ball of $\mathbb{C}^d$. (Received September 08, 2016)